

State Interoperability Executive Committee (SIEC) Update

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Description

Update on the activities of the SIEC.

Committee Membership

Co-chair:

James Broman

Fire Chief of Lacey

Washington State Association of Fire Chiefs

Alan Komenski

Communications Center Manager, City of

Bellevue

Association of Washington Cities

Co-chair:

Gary Robinson

Director

Department of Information Services

Timothy Lowenberg

Adjutant General

Washington Military Department

John Batiste

Chief

Washington State Patrol

Jim Mullen

Director

Washington State Emergency Management
Division

Mike Doherty

Clallam County Commissioner

Washington State Association of Counties

Gummada Murthy

Director, Maintenance and Operations

Department of Transportation

Tom Griffith

Director, Clark County Regional Emergency
Services Agency

Washington State Emergency Management
Association

Samuel Pierre

Fire Marshal

State of Washington

Ken Irwin

Sheriff, Yakima County Sheriff's Office

Washington Association of Sheriffs and Police
Chiefs

Dave Stern

Chief of Police, City of Edmonds

Washington Association of Sheriffs and Police
Chiefs

Mark Kahley

Division Manager

Department of Natural Resources

Current Initiatives

At the June 8, 2005 meeting, the SIEC discussed and approved the following initiatives:

Project-25 (P25)

The SIEC has recommended to the Board that P25 be adopted as a state standard supporting statewide interoperability. In addition to assisting in interoperability issues, P25 offers advantages over the older, proprietary radio architectures including:

- Out-of-the-box interoperability (within frequency range) and simple set up infrastructure.
- Backward compatibility with existing analog technology.
- Forward migration to next-generation public safety communications systems.
- Radio-to-radio interoperability without the need for fixed-console intervention (dependent upon how radios are programmed by their owners).
- Cost effective use of high-level, standardized encryption.

Multiple subsystem architectural approach for statewide system

The SIEC reviewed the *Alternatives Report* prepared by Federal Engineering, the consulting firm that is assisting the SIEC in developing the Technical Implementation Plan. After reviewing the alternative architectures available for radio interoperability, the SIEC chose the multiple subsystem approach. This approach consists of a centrally managed "system-of-systems" approach based on centralized radio systems architectures that are not restricted to a single frequency band. This method uses a network of radio sites, transport mechanisms, interfaces, and audio switches connected through one or more centralized control centers to provide direct interoperability between users on each subsystem.

This approach will allow the state to leverage existing radio systems in the VHF and 800 MHz bands and support a phased migration to standard common air protocols (i.e., P25).

Subsystems would primarily use trunked simulcast or multicast technology for wide area communications as well as conventional channels for mutual aid or low traffic areas. The primary advantage of this solution is that it provides Level 6 interoperability for participating agencies, with different systems operating on a standards-based, shared infrastructure with wide area, seamless coverage.

In the phased deployment of the Multiple Subsystems Alternative, the state would use Voice over Internet Protocol (VoIP) systems and mutual aid channels to communicate with non-participating agencies. In this alternative, VoIP interfaces would initially be used to establish fixed connections to a limited number of pre-determined local radio communications systems as well as existing state assets in that area. As the mutual aid overlay VHF and 800 MHz subsystems are implemented regionally and state agencies migrate to the new systems, more VoIP resources would be made available for interoperability with non-participating agencies. As regional deployments are completed, the options for communication with state agencies would be via shared mutual aid channels, or a "patch" from local resources. Local governments would also be able to connect to the state system using VoIP or direct communications on state systems via partnering agreements.

If a local entity wishes to partner with the state on either VHF or 800 MHz subsystems deployed in their area, the state could negotiate with that entity to provide additional resources (sites, channels, etc.) to add to the appropriate subsystem in order to provide enhanced coverage and capacity.

Next steps

- The SIEC will review an architectural report that will detail the systems design of the proposed statewide radio system. Staff anticipates that the architecture report will be approved on August 15, 2005.
- The SIEC will review the first draft of the Technical Implementation Plan by August 29, 2005. Staff anticipates that the plan will be approved by the SIEC on October 11, 2005.

800 MHz Re-banding

The Federal Communications Commission (FCC) entered into an agreement with Nextel Communications to migrate all radio systems in the 800 MHz radio band. Currently, commercial cellular communications occupy frequencies adjacent to public safety frequencies, risking interference with public safety communications. The migration will move public safety communications and commercial cellular communications to frequencies far enough apart to reduce the risk of interference.

This action affects the Washington State Department of Transportation and the Department of Corrections. The SIEC will act as the point of contact for this work, projected to cost \$56 - \$106 million and involving negotiations with:

- Nextel Communications
- Washington State Regional Planning Committee
- Oregon State Regional Planning Committees
- Transition Administrator representing the FCC and the trust set up to fund the migration
- Portland, Oregon
- Clark County, Washington
- Canada

The SIEC has established a working group that is co-chaired by Gummada Murthy, WSDOT and Gary Robinson, DIS. This working group is gathering information in preparation for a planning contract with Nextel Communications and the transition administrator.

According to the agreement, all funds required for the planning, contracting, negotiations, engineering and equipment will be paid by Nextel Communications.

Next Meeting:

August 15, 2005